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Contents for Week of May 13, 1940. Vol. XIX. No 12.

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Photograph by Donald McLeish

THE FRANKFURTER LINKS THE MEAT-EATING WORLD TO FRANKFURT

The first word of the "hot dog's" pedigree is Germany's Frankfurt, one of several cities which gave their names to spicy meat morsels. Italy conferred the title of bologna on ground meats smoked in big casings. Frankfurt named the meat-by-the-yard invention of twisting the casings into "links" (upper right). Vienna (Wien) contributed the name of wienerwurst, shortened to weiners, to the smaller or puppy-size sausage links. The "skinless franks" of the U. S., the black puddings of England and Scotland, the chorizos of Spain, the salamis of Italy and Hungary are modern forms of sausage meats, known to history since Aristophanes referred to them in a Greek drama of the 5th century B. C. (See Bulletin No. 5).

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Sweden Counts Resources

ONE of the magnets that originally drew the war into Scandinavia was the high content iron ore from Sweden's mines, an import which has figured prominently among Germany's vital supplies. The Norwegian town of Narvik, northern spearhead of German attack, is the port through which Sweden makes iron shipments to the western world during almost half the year. German assault on the northern port, it is reported, was aimed at insuring continued supplies of the iron ore to the Reich, and at the same time cutting off shipments to Great Britain.

The Swedish ore is especially valuable to belligerent Germany. In 1938, the Reich took nearly nine million tons, or 71 per cent of Sweden's total exports of ore and concentrate. This compares with some 25 per cent for Great Britain during the same period. Recent estimates, however, indicate a considerable drop in these exports to Germany in the first three months of 1940, as compared with the same months in 1939. Meanwhile, British purchases mounted. In February, 1939, for instance, Swedish ore shipped through Narvik to Great Britain amounted to 70,234 tons; by contrast, the February, 1940, shipments were 131,855 tons.

No Racial Minority Problems in Sweden

The ore comes from remote, sparsely-settled Swedish Lapland. There the famous Kiruna deposits are tapped by the "iron line," a railway stretching north-westward to Norwegian Narvik for winter shipping, and southeastward to the Swedish port of Lulea on the Gulf of Bothnia, open for shipping during the summer and fall months.

In addition to these large iron ore supplies, Sweden has a generous food larder from which to serve not only her own home needs, but export markets as well. With more than 50 per cent of the country covered with coniferous forests, timber wealth is enormous. In man-power and armaments, Sweden ranks first among the three Scandinavian countries, having an active military force estimated at 100,000 men and 525,000 trained reserves. Nature itself is an ally against any invasion pushed inland from the coast, since Sweden, like Finland, offers an enemy a succession of defensive and obstructive positions in forests, lakes, and rivers.

In an area of 173,347 square miles, Sweden has a little more than six million inhabitants. This gives her a population density of about 36 to the square mile, compared with Norway's 23.

Racially, Sweden has no minority problems. Less than one per cent of her citizens are Finns and Lapps, who compose the largest non-Swedish fraction. Among the foreigners living there, according to the 1930 census, the Germans, with an estimated 3,000, made up the second largest group after Finnish subjects.

Growth of Industry Spectacular

A little less than half of Sweden's people make their living by farming. Chief crops include potatoes, oats, hay, wheat, and corn. With its wide level stretches, Sweden has four times as much cultivated land as mountainous Norway. While imports of wheat, coffee, and fruit are necessary, large quantities of breakfast bacon, eggs, and butter are exported in normal times.

In 1938 Great Britain was Sweden's best customer, while Germany was the leading source for imported supplies, especially in the machinery, chemical, and automobile fields. Uncle Sam ranked third both in Sweden's imports and exports,

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A FRENCH "FATHER OF FREEZING" GAVE SEAGOING BEEFSTEAKS THEIR INTERNATIONAL PASSPORT IN 1877 Photograph by Arthur Bauer

The pioneer "floating icebox," Le Frigorifique, especially refrigerated for meat shipments, crossed the Equator during the summer months of 1877 with meat from Buenos Aires to the French port of Rouen, thanks to the inventiveness of the French engineer, Charles Tellier. Now the Southern Hemisphere is butcher-inchief to northern countries, Argentina alone shipping more than a billion pounds of beef a year. Packing plants, like this one 30 miles from Buenos Aires, send cattle from Argentina's pampas directly into international commerce, as chilled, frozen, or canned beef (Bulletin No. 5).

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Milwaukee, Middle Western Progressive, To Welcome N.E.A.

MILWAUKEE, between June 29 and July 4, dispenses hospitality to National Education Association members, as one educator to another. The city's educational system is almost as old as the city. When founding father Juneau called the first meeting of the first school board of the small new town in 1846, five public

schools were promptly opened.

Since then the Great Lakes city has won itself the name of being both progressive and productive. It pioneered in metal industries in a metal-rich State. One of the greatest steel-consuming cities in the nation, it plunged into the manufacture of giant turbines, ore crushers of record-breaking size, concrete mixers, engines, pumps, gas and oil line pipes, gasoline-cracking stills, and steam shovels. Then Milwaukee's hard-working manufactures cleared the way for progress elsewhere, from Chile's mines to Panama's canal.

Large Foreign-Language Group Nearly Half German

The city which forges ahead in shaping steel to useful ends has pioneered also in attention to human needs, in line with its early attention to education. A national safety contest in 1934 recognized Milwaukee as the nation's foremost in preventing traffic fatalities. The Milwaukee plan for group medical insurance, the city police, and the vocational schools, notably the trade school for girls, have also

received commendation.

The human factors which have set Milwaukee's progressive pace are unusually varied. More than half the people, according to the 1930 census, were either foreign born or the children of foreign-born parents. In the miniature parade of nations which constitutes the city directory, citizens of German extraction are in the lead, with 45 per cent of the foreign stock. (A completely German company joined Wisconsin's regiments in the Civil War.) Poles follow the Germans, with a fraction not half as large. The city in 1880 had the first Polish newspaper in the United States. Austrians, Czecho-Slovaks, Italians, and Yugoslavs contribute about 3 per cent each.

The pioneers who put Milwaukee on the map were a French Canadian, Solomon Juneau; Kilbourn, from Ohio; and Walker from Virginia. Separated by rivers, the three established rival settlements, which in 1845 merged into one. Traces of the rivalry remain in the city's "mismatched" streets, where bridges are built on the bias to connect formerly separate towns on opposite river banks.

Industries Conquer Indians on "Milwacky's" Site

In the early 1830's the Potowatomi Indians still had their village on the site of a modern hotel on Wisconsin Avenue. The name which white men spelled "Milwacky" meant "good land" to them. Now their burial ground on the wooded bluffs and their wild-rice marshes alike have disappeared under homes and factories. The first surfaced highway (a plank road) reached the scene in 1846, and the first paper mill went up. Within a decade there were also the State's pioneer telegraph, railroad, and iron-rolling mill. Milwaukee's 1850 population was 12 times as great as in 1840, and it doubled again by 1860. Now Wisconsin has no other city half its size. On the national scale it ranks twelfth, with 578,250 inhabitants (1930).

Early fur traders followed Indian example and sought Milwaukee Bay for shelter from Lake Michigan storms. The Milwaukee River, just before emptying into the bay, receives two tributaries, the Menominee and the Kinnickinic. The

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sending Sweden a wide variety of products, including oil, automobiles, and machin-

ery; taking Swedish pulp and paper.

Mining has been important in Swedish economy from time immemorial. Today one of Europe's large iron ore producers, this country has at times held the leading position in world markets. About one-fourth of the iron production comes from central Sweden; the majority from the northern deposits at Kiruna in Lapland (illustration, below).

Less significant, economically, are the other minerals of Sweden, which include silver, lead, copper, zinc, and manganese. The country also has a little coal, but

must import considerable quantities as fuel for growing industries.

Swedish industry and commerce have expanded spectacularly in modern times. With less than 10 per cent of the people engaged in industries and trades around the middle of the 18th century, the proportion so engaged had become 38 per cent in 1900; 50 per cent in 1920, and nearly 54 per cent in 1930. Scattered about the country are factories now producing such varied goods as lighthouse supplies, farm machinery, telephone equipment, porcelain, glass, matches, paper, and wood pulp.

The widespread industrial life has considerable effect on the social structure of the country. Although two-thirds of the population is still found in country districts, the concentration is of a commercial nature, centering about various industries such as iron and timber. At the same time there also has been a marked

migration to the cities.

In Sweden, sometimes described as the nation of the "middle way," the development of both employer and labor organizations has brought about collective agreements estimated in 1933 to cover the activities of some 600,000 workers. Also prominent are Sweden's cooperative groups and social legislation—unemployment, disability, and old-age insurance. A constitutional monarchy, Sweden has permitted its women to vote in general elections since 1921. Public elementary schooling has been free and required since 1842. There is practically no illiteracy.

Note: Additional descriptions and photographs of Sweden will be found in "Nomads of Arctic Lapland," National Geographic Magazine, November, 1939; "Life's Flavor on a Swedish Farm," September, 1939; "Flying Around the Baltic," June, 1938; "Country-House Life in Sweden," July, 1934; "Sweden, Land of White Birch and White Coal," October, 1928.

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Photograph by Borg Mesch

THE BOOM TOWN THAT IRON BUILT BROKE LAPLAND'S ARCTIC PEACE

The Lapps of Swedish Lapland for years had a small settlement at Jukkasjärvi a hundred miles north of the Arctic Circle. Early in the 20th century, miners came to work on the two mountains, Kirunavaara and Luossavaara, which were simply huge knobs of iron ore rising above the snow-covered wilderness. The mining town of Kiruna grew up almost overnight in the depths of Lapland. The iron content of the ores averages between 60 and 65 per cent, sometimes running as high as 69 per cent. Without shafts or excavations, the miners blast ore from the mountainside. The Lapps now drive their reindeer trains into Kiruna and fill their slippershaped sleds with provisions.

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Norway in the Headlines: A Fingertip Gazetteer

ANDALSNES. Railhead port of some 500 people one-third the way up the west coast, nearly 100 miles southwest of Trondheim, at the head of Romsdalsfjord. Travelers come to see the mile-high Romsdalshorn 5 miles east (Norway's "Matterhorn"), and other mountain giants. The railway, opened in 1924, connects Andalsnes with the main line from Trondheim south to Oslo. Has a cement

factory, a brick plant, and a textile mill.

BERGEN. Atlantic port of 100,000 inhabitants, halfway along Norway's southwestern bulge. Commercial center of western Norway, and second only to Oslo in size and shipping. Transshipping point for fish products from the north. Handsomely rebuilt after fire in 1916. Founded in 1070 by King Olaf Kyrre, it became the church and trade center of the nation. The powerful Hanseatic League in 1445 opened offices there. Bergen has been important in international commerce ever since. Western end of railway to Oslo.

BODO. Norwegian Sea fishing port of 5,600 people within the Arctic Circle, 100 miles south of Narvik. At the mouth of Saltfjord, which cuts a 40-mile gash into Norway where the country is barely 55 miles wide. The oldest town of Nordland Province, Bodö has one of the world's few Arctic broadcasting stations. The midnight sun is visible there for six weeks after June 1. The maelstrom created

by the tide rushing past Bodö has destroyed ships.

DOMBAS. Central railroad junction mountain village, at the head of a long valley that opens out upon Oslo, 213 miles southeast. At Dombås the rail spur from Andalsnes joins the main line from Trondheim (130 miles north) to Oslo.

DRAMMEN. Southeastern port 22 miles south of Oslo, at the head of Drammensfjord, an arm of Oslofjord. Norway's fifth largest town, with 25,800 people. Has the country's longest railroad bridge—5,796 feet—on railway from Oslo to Bergen. Has sawmills, cellulose and wood pulp factories, shipbuilding.

EGERSUND. Cable station and fishing port of 3,400 people on the Atlantic

side of Norway's rounded southern end.

GUDBRÁNDSDALEN. The valley ("dalen") crossing Norway diagonally from the southeast above Oslo to passes which open on the west coast toward Andalsnes. Followed by railway from Oslo through Hamar and Lillehammer, which connects at Dombås with northern line to Trondheim and western line to Andalsnes.

HAMAR. Historic southeastern town of 6,000 beside 62-mile-long Lake Mjösa, Norway's largest, Hamar owes its origin to an Englishman who became Pope Adrian IV, the original Nicholas Breakspear; he established a diocese there in 1152. The railroad from Oslo, 78 miles south, passes through Hamar on the

way to Trondheim, 265 miles northwest.

KRISTIANSAND S. and KRISTIANSUND N. Norwegians use the emphatic letters after these names to distinguish between Kristiansand S., leading city of 18,700 on the southern coast, and the smaller, more remote northern fishing town, Kristiansund N. Kristiansand S., the sixth largest city, has an airport and extensive harbor facilities at Norway's southern tip; it is $4\frac{1}{2}$ hours by ferry from Denmark. Kristiansund N. lies on three islands of the islet fringe southwest of Trondheim. Dried and canned fish are shipped from there, with a smaller trade in salmon and cod liver oil.

LAERDALSOYRI. Village of 500 people on the innermost southern branch of Sognefjord, Norway's longest and deepest, which cuts into the west coast for

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three navigable rivers and the bay, augmented by canals, furnish dock facilities

for today's extensive shipping.

Milwaukee started out to be a railroad pioneer, sending Wisconsin's first rails in 1851 southward to link with Mississippi shipping. But the Civil War stopped Ol' Man River's freight business, and opened up Milwaukee's future as a lake port. As traffic turned east through the Great Lakes, instead of south, Milwaukee's 1863 port activities increased to six times the 1862 tonnage.

With one-sixth of the State's population, Milwaukee holds its own among the crescent of cities along Lake Michigan shores to Chicago. It has at times surpassed the other lake ports in number of ships arriving and leaving. Coal for the city's industries is the most usual incoming cargo. Departing ships carry grain and manufactures. A feature of the lake traffic is the car ferry, carrying 30 freight cars.

Foremost among the fifty industries which Milwaukee today has substituted for Indian solitude is the high-speed manufacture of automobile bodies. Silk stockings and wheelbarrows, outboard motors and batteries, shoes and dredges are samples of the city's industrial variety. As center of the foremost dairying State, Milwaukee cans generous portions of condensed and evaporated milk.

Note: See also "On Goes Wisconsin," in the National Geographic Magazine, July, 1937; and "By Car and Steamer Around Our Inland Seas," April, 1934.

Bulletin No. 2, May 13, 1940.



Photograph by Aero-Graphic Corporation

MILWAUKEE'S CIVIC CENTER IS IN A "FOREIGN" CITY

After Juneau and Kilbourn laid out their rival towns on opposite sides of the Milwaukee River, "Kilbourntown" was annexed to "Juneau's Side" in tacit recognition that the latter was the dominant town. But modern growth has merged them, and the Civic Center stands in what was once Kilbourn's territory, on Kilbourn Avenue. The Safety Building (foreground) contains offices of the civic government. The larger building is the Courthouse.

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Modern Spillway for Ancient Euphrates, Garden of Eden River

THE Euphrates, flowing past the traditional Garden of Eden and the site of Babylon, is being further shackled to man's benefit, as British engineers construct the so-called Habbaniya Escape to carry off flood waters into Lake Habbaniya in central Iraq. In the past, high waters have washed away mud houses, destroyed crops, and inundated the Damascus-Baghdad road. The "escape" is a river-control device like the Bonnet-Carre Spillway, which protects New Orleans by diverting Mississippi floods into Lake Pontchartrain at a point upstream from the city.

The longest river in western Asia, the Euphrates flows 1,750 miles from the Armenian plateau in eastern Turkey, some 60 miles south of the Black Sea, to the Persian Gulf. Through Turkey, Syria, and Iraq, its course passes scenes of history, from the Tower of Babel to Basra, the Arabian Nights home port of Sindbad the

Sailor.

Once Boundary of Vanished Empires

East meets west, according to many geographers, along the banks of the Great River of Genesis. This was, at various times, the eastern boundary of the Roman Empire. Once it separated the Assyrians from the Hittite kingdom, and later divided the Persian Empire into halves. It formed a fortified frontier against Mongol hordes when they held Mesopotamia in the 13th century.

Formed by two mountain streams meeting near Keban, the youthful river dashes through the Taurus Mountains, and then begins its long journey across Mesopotamia, twisting through flat desert country. Ruins indicate that the middle river's desolate shores were densely populated in ancient times. It swings southwestward to within 100 miles of the Mediterranean around Carchemish. Then east of Aleppo, it heads into the southeastern course of its last thousand miles.

Here and there the treeless valley flats are irrigated. Skins are lowered into the river and raised by oxen, or great wheels pick up water in earthen vessels and

empty it into aqueducts carried on arches to the fields.

Bus Route Follows River

The desert bus route from Aleppo to Baghdad follows the Euphrates Valley from Meskene to Al Falluja. At Dibsé (Thapsacus) Cyrus and Alexander the Great crossed the river. At Ana the narrow shores offer little land for cultivation. Here date palms are common; olive trees disappear. This section was well populated and fertile until the 13th century Mongol invasion destroyed its prosperity. Below Ana, oil is pumped under the river in weighted, welded steel pipes which form a "drowned" link in the 600-mile-long pipe lines connecting the important Kirkuk fields of Iraq with Haifa and Tripoli on the Mediterranean coast. At Hit there are evidences of a prehistoric shoreline more than 600 miles above the present mouth. Bitumen wells near Hit supplied pitch to cement the walls of Babylon, farther down the Euphrates Valley. From Hit to its union with the Tigris, the Euphrates runs through bare, flat river deposits in a shifting course.

Below Hit, steamers with a draft of five feet or less can navigate the stream, which decreases in volume as water is drained off for irrigation and evaporates in swamps. Only a few fixed bridges cross the river (illustration, next page), but pontoon- and boat-bridges span it at frequent intervals. At Dhibban, north of Lake Habbaniya and northwest of Baghdad, is a British Royal Air Force base.

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112 miles. Cruise steamers from Bergen bring travelers inland to see Jostedalsbre, Europe's largest glacier. A mountain highway connects Laerdalsöyri with the

Bergen-Oslo railway to the south. Villagers engage in salmon fishing.

LILLEHAMMER. Lake resort of 5,400 in southeastern part of the valley of Gudbrandsdalen. A center for grain and potato farming country, it has factories for agricultural implements and other machinery, flour mills, and sawmills. At north end of Lake Mjösa, visited by steamers. The railroad from Oslo to Trondheim passes through Lillehammer. A mile from town stands the famous outdoor museum of 85 historic Norwegian farm buildings, a display of centuries-old wooden barns, hand-carved homes, granaries, a chapel, and an old smithy. Home of Nobel Prize-winner novelist, Sigrid Undset.

NAMSOS. The only railhead on the northern coast between Trondheim and Narvik. Lumber port of 3,600 people in Namsfjord, the next fjord north of Trondheimsfjord, about 80 miles beyond Trondheim. The railroad runs 25 miles east to the copper-mining region near Grong, then turns south to Trondheim and connects there with lines going south to Oslo and east to Sweden. Industries include wood pulp and sawmills, furniture factory, shipyard, tannery, bicycle factory,

and herring-oil plant. Shipping point for Grong's copper.

NARVIK. Important ice-free port 150 miles north of the Arctic Circle. Incorporated as Victoriahavn in 1902 on the completion of the "iron line" railroad to Sweden's richest iron mines. The winding 26-mile stretch of rails in Norway cuts through 19 mountain tunnels. Essential for iron exports and imports of winter supplies when Swedish ports are ice-locked. Its excellent harbor is sheltered by the craggy sides of Ofotfjord. The town now has 10,000 inhabitants. The railroad connects it with Sweden's capital, but with no Norwegian towns.

OSLO. Capital and leading city in size and shipping. Cultural and commercial center for southeastern Norway. Founded by King Harald Hårdråde in 1060 at the head of 60-mile-long Oslofjord, the city now has 253,000 people. The Royal Palace, the seat of the Storting, the University, and the historic collection of such antiques as genuine Viking ships give the city supreme national importance. The

Nobel Institute awards the Peace Prize there.

OSTERDALEN. Strategic "East Valley," which carries the country's easternmost railway from Oslo north to Trondheim, via Elverum, Röros, and the junction of Stören. In places only 10 and 25 miles from the Swedish frontier.

ROROS. Copper-mining town for four centuries, oldest in Norway. Near eastern frontier, 35 miles by highway from Sweden. With some 4,000 people, it is a station on the Oslo-Trondheim railway through the valley of Österdalen.

STAVANGER. Southwestern seaport of 45,000 inhabitants, Norway's fourth largest city. Nearest port to England and Germany. Important air field. Market for North Sea fisheries, and seat of one of world's leading fish-canning industries.

STEINKJER. Lumber port of 3,000 inhabitants and railway station at head of 80-mile-long Trondheimsfjord. Some 70 miles north of Trondheim on extension northward of railroad to Namsos. A "waistline" town situated where Norway is only 85 miles wide.

STOREN. Railway junction 32 miles south of Trondheim, where the east and west railroads from Oslo meet. On the Gula River, which empties into Trond-

heimsfjord.

TŔONDHEIM. "Waistline" seaport and Norway's third largest city, with 57,000 people. Founded in 996. Constitution requires that kings be crowned in its Gothic cathedral, country's first Christian church. On southern shore of Trondheimsfjord, only 50 miles from Swedish border. Has technical university for all engineering courses. Shipping center for copper, timber, and fish.

Note: See also "Europe's Northern Nomads" (Lapps), National Geographic Magazine, November, 1939; "Country Life in Norway," April, 1939; "Life in a Norway Valley," May, 1935; "Norway, a Land of Stern Reality," July, 1930; and "Norway and the Norwegians," June. 1924.

All the Norwegian place names and railroads mentioned above appear on The Society's map of Europe and the Near East, a supplement to the May, 1940, Geographic. Unfolded copies are available from The Society's Washington, D. C., headquarters at 50¢ (paper) and 75¢ (linen).

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Commodities in the News: No. 2, Meats and the World's Muscle

ALONG with their daily bread, daily meat is being served to millions mobilized in the world's armies. The average army meat ration is frequently a larger portion than the soldier has been served at home, especially in southeastern Europe and the Near East, where for many meat is a luxury. Where will the meat on the

soldier's plate come from, and how will it be delivered?

Many of belligerent Europe's meat courses must be served from overseas. The continent's two leading meat-counter countries, Denmark and Poland, have virtually closed up shop because of the war. Europe's greatest beef resources are corralled in Soviet Russia, but the countries with the next most numerous herds of cattle, Germany and France, are normally customers rather than merchants on the international meat market.

Argentina Built Big Business on Ice Foundation

Most of the beefsteaks imported to build Europe's brawn first graze on the pastures of Argentina or Australia, the cowboys-in-chief of the world's beef herds.

Argentina's yearly exports may be four times as great as Australia's.

Small Uruguay, in a sample year, sells more beef than South America's other great cattle-raising country, Brazil, although the latter is forty times larger. Chile is the fourth-ranking beef seller of the Western Hemisphere, surpassing both Canada and the United States in international trade. Australia's partner in the beef business is New Zealand, which stands after Brazil in tonnage of exports. These lands are so rich in livestock that they alone, with almost no help from Africa, maintain the Southern Hemisphere's boast of filling the meat baskets of Northern Hemisphere purchasing countries.

Argentina has taken the lead in meat marketing within the past half-century. In 1867 it was an achievement to ship meat without spoiling from Chicago to New York; globe-trotting steaks were still a dream. In 1877 the French engineer Tellier refrigerated a shipload of Argentine meat for a successful voyage to France. "Tellier" became the password that took meat across foreign frontiers. Then the land of the gauchos began to improve cattle breeds for better meat-bearing specimens. Now Shorthorn, Hereford, and Aberdeen Angus strains predominate among the country's 35 million head. Capital from the United States and Great Britain is invested in Argentine packing plants (illustration, inside cover).

Meat-Hungry Men Eat Elephants and Ants

The inter-hemisphere meat trade converges on Great Britain. The nation whose first Queen Elizabeth traditionally breakfasted on beef and beer, whose peers joined the Sublime Society of Beefsteaks, now buys two-thirds of the beef that crosses seas to market. British loyalty to mutton and chops is the basis for the small international trade in mutton, most of which comes from New Zealand.

Actually, meat accounts for only 4 per cent of the trading for food in which modern nations engage. For many countries it is a dietary luxury which whole populations use sparingly. In the United States, where meat platters are fuller than elsewhere, average daily consumption per person is one bite more than five ounces, distributed over all three meals. North Atlantic families have meat servings one-eighth larger than average, while those of Southern families (white) are one-third smaller than par. Pork and beef together constitute four-fifths of Uncle

Bulletin No. 5, May 13, 1940 (over).

Below the lake, focal point of the new flood-control project, is the Hindiya Barrage, from which new irrigation canals lead water to the dry but fertile lowlands of ancient Babylonia. The remarkable ancient irrigation system is also slowly being restored. Canals, old and new, are prominent features of the topography of the lake- and marsh-strewn alluvial plain of ancient Sumeria.

Plane travelers on the air routes to and from the Orient pass above the lower

Euphrates valley, between the Persian Gulf and Baghdad.

Not far east of the mud-brick ruins at the birthplace of Abraham, Ur of the Chaldees, is the swampy lake Hor al Hammar, from which the Euphrates empties in two main channels to join the Tigris. The combined stream, called the Shatt-al-Arab, flows past the ports of Basra, in Iraq, and Abadan, in Iran, to pour its muddy waters into the Persian Gulf. Abadan is at the delivery end of the oil pipe line from the vital west-Persian oil fields. The Shatt-al-Arab region supports almost continuous groves of date palms. Oil, dates, barley, wheat, rice, wool, hides and skins, and cotton are among the exports shipped from the lower Tigris-Euphrates Valley.

Note: For additional material about the Euphrates see "Change Comes to Bible Lands," Note: For additional material about the Euphrates see "Change Comes to Bible Lands," National Geographic Magazine, December, 1938; "The Citroën-Haardt Trans-Asiatic Expedition Reaches Kashmir," October, 1931; "New Light on Ancient Ur," January, 1930; "The Kizilbash Clans of Kurdistan," October, 1928; "Archeology, The Mirror of the Ages," August, 1928; "From London to Australia by Aeroplane," May, 1923.

The course of the Euphrates may be traced on The Society's Map of the Bible Lands, which

was first issued as a supplement to the December, 1938, Geographic. Unfolded copies of this map are obtainable from The Society's Washington, D. C., headquarters at 50¢ (paper) and

75¢ (linen).

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Photograph by W. Robert Moore

YOU CAN LEAD A MULE TO WATER, BUT YOU CAN'T MAKE HIM CROSS

The only bridge across the Euphrates for many miles in Syria is this one-way span at Deir-ez-Zor, one of the few permanent structures crossing the river. The traveler, for much of the river's length, must depend on ferrymen still carrying on the trade of their ancestors, or swaying pontoon bridges. The Syrian muleteer has his head prudently covered for desert travel. In most of the Euphrates valley, automobiles are rare enough to frighten the local beasts of burden; this balking mule refused to pass the car, and finally sat down stubbornly on the running board.

Sam's meat dishes, with veal, lamb, and poultry for variety. The United States has more chickens than China.

The Chinese, lacking cattle, keep quantities of ducks as their meat reserve, as

the Poles keep geese, and the Romanians turkeys.

Meat has changed the course and tempo of civilization, as early man ceased roving on endless meat-hunts and began to domesticate animals for some of his food. The first to be tamed, the dog, is rarely eaten except in famines. The horse was partially protected when early church fathers frowned on horse meat. But cattle have had to be both friend and food to man since history began. Egyptian tombs 4,000 years old have contained models of contemporary herds and abattoirs. Some African tribes have been found subsisting almost entirely on meat and fresh blood. The Eskimo, in snow-covered regions, is forced to be a flesh-eater exclusively.

When other food is lacking to assuage man's meat hunger, he will cut steaks from the hippopotamus, the anaconda, the camel, the elephant. The iguana is eaten in Mexico, the monkey in Peru, the palolo worm on Pacific islands, the locust in

Arabia, the white ant in the Belgian Congo.

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Photograph by F. S. Lincoln

WELL-DRESSED MEAT IN NORMANDY WEARS AN APRON AND A CORSAGE

For cleanliness and appetizing appeal, the boucherie, or butcher shop, in the Norman town of Avranches adorns beeves with protective muslin aprons and sprigs of flowers. Mutton, too, is on sale. A gilded horse's head would be the sign that the butcher shop sells horse meat also. France receives beef shipments from Madagascar, mutton from Algeria and French Morocco—almost the only African countries with any considerable international commerce in meats.

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